

Notice of Allowability

Application No.

10/628,881

Applicant(s)

SHIMADA ET AL.

Examiner

Karen B. Addison

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 1-4-2006.
2. ☒ The allowed claim(s) is/are 1-8,10,11 and 22.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see page 8-15, filed 1/4/06, with respect to claims 1-8,10-11 and 22 have been fully considered and are persuasive. The non-final rejection of 10/5/05 has been withdrawn.

Election/Restrictions

This application is in condition for allowance except for the presence of claim 12-21 directed to the method of manufacturing a surface acoustic wave device non-elected without traverse. Accordingly, claims 12-21 have been cancelled.

Allowable Subject Matter

2. Claims 1-8,10-11 and 22 are allowed.

The following is an examiner's statement of reasons for allowance: Prior art fails to show a surface acoustic wave device having interdigital transducer electrode wherein the connector electrode and the electrode for connection to the element are joined together through a solder bump component and the periphery sealing electrode and the periphery sealing conductor film are joined together through a solder sealing component between the base substrate and the surface acoustic wave element, and the solder bump component and the solder sealing component comprise a Sn-Sb based or Sn-Ag based lead-free solder containing 90% or more Sn and the base substrate has a

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thermal expansion coefficient of 90-20ppm/C degrees, Prior art also fails to show, the side surface covering resin layer having an elastic modulus of 3.5 - 6 Gpa at 25 degree Celsius and an elastic modulus of 0.2-0.4 GPA at 230 degrees Celsius. Prior art also fails to show, the side surface covering resin layer is attached to cover a side surface of the surface acoustic wave element and an outer peripheral surface of the solder sealing component and the side surface covering the resin layer having an elastic modulus which follows a change of a gap between the base substrate and the surface acoustic wave element caused by volume expansion of the solder bump component and the solder sealing component at a melting temperature of the solder bump component and the solder sealing component, wherein the conductor width of the periphery sealing conductor film of the base substrate is larger than the electrode width of the periphery sealing electrode of the surface acoustic wave element, and the configuration of an inner periphery of the periphery sealing conductor film and the configuration of the inner periphery sealing conductor film and the configuration of an inner periphery of the periphery sealing electrode are generally identical to each other.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

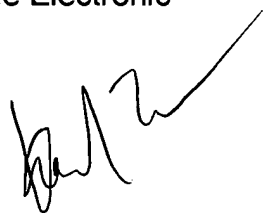
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karen B. Addison whose telephone number is 571-272-2017. The examiner can normally be reached on 8:00 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on 571-272-2044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KBA
3/15/06



KARL TAMAI
PRIMARY EXAMINER